



Nanostructures Design for Catalyst: Latest Advances and Prospects

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Message from the Guest Editor

The recent development of nanotechnology has laid the foundation for the design and preparation of various nanostructured materials. Nanostructured materials surpass classical bulk-structured materials due to their unique chemical, physical, electrical, and mechanical properties, and their excellent tunability. Among them, the nanostructural design of catalysts is the most popular topic at the forefront of catalysis research. In the fields of thermocatalytics, electrocatalysis, and photocatalysis, nanomaterial-based catalysts have attracted much attention due to their relatively high efficiency and stability. The nanostructural design of catalysts focuses on composition regulation, size optimization, morphology control, structural engineering, interface engineering, etc., as well as the excellent catalytic performance brought by nano-scale catalysts. At present, the control and design of specific properties of the nanometer material are full of challenges.

This Special Issue will introduce the latest advances and prospects in the nanostructural design of catalysts. For detailed information please see the Special Issue webpage.

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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